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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/925,344 | 08/09/2001 | Derk Reefman | NL 000428 | 4392 |

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EXAMINER

SMITHERS, MATTHEW

ART UNIT PAPER NUMBER

2137

DATE MAILED: 07/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/925,344

Applicant(s)

REEFMAN ET AL.

Examiner

Matthew B. Smithers

Art Unit

2137

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/9/2001;3/1/2002.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

The information disclosure statements (IDS) submitted on August 9, 2001 and March 1, 2002 were filed in compliance with the provisions of 37 CFR 1.97(b).

Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. 5,353,059 granted to Lawlor et al.

Regarding claim 1, Lawlor meets the claimed limitations as follows:

“Method of concealing errors in a digital information signal, characterized in that the digital information signal is a single bit bitstream ($x(n)$) and that the method comprises low pass filtering the single bit bitstream for constructing the low frequency contents ($u(n)$) of the single bit bitstream, replacing the low frequency contents during an error by a low frequency approximation of the single bit bitstream and converting the low frequency signal obtained after the replacement into a regenerated single bit bitstream ($y(n)$) with concealed errors by means of a sigma-delta modulator (SD) (summation –

difference modulation)." see column 8, line 45 to column 9, line 31; column 12, lines 44-64; column 13, line 36 to column 12, line 24 and Figures 1, 8 and 11.

Regarding claim 2, Lawlor meets the claimed limitations as follows:

"Method as claimed in claim 1 characterized by outputting the received single bit bitstream ($x(n)$) during the absence of an error and outputting the regenerated single bit bitstream ($y(n)$) during the occurrence of an error and by bit-synchronizing the sigma-delta modulator (SD) (summation –difference modulation) to the received single bit bitstream ($x(n)$)." see column 12, lines 44-64; column 13, line 36 to column 12, line 24 and Figures 8 and 11.

Regarding claim 3, Lawlor meets the claimed limitations as follows:

"Arrangement for carrying out the method of claim 1, characterized in that the arrangement comprises in cascade a low pass filter (F) for constructing the low frequency contents of the single bit bitstream, means (I) for replacing the low frequency contents during an error by a low frequency approximation of the signal and a sigma-delta modulator (SD) (summation –difference modulation) for converting the low frequency signal ($u(n)$) obtained after the replacement into a regenerated single bit bitstream ($y(n)$) with concealed errors." see column 8, line 45 to column 9, line 31; column 12, lines 44-64; column 13, line 36 to column 12, line 24 and Figures 1, 8 and 11.

Regarding claim 4, Lawlor meets the claimed limitations as follows:

"Arrangement as claimed in claim 3 characterized by switching means (SW)

applying the received single bit bitstream ($x(n)$) to an output terminal (O) during the absence of an error and applying the regenerated single bit bitstream ($y(n)$) to the output terminal (O) during the occurrence of an error and means (SU) for synchronizing the sigma-delta modulator (SD) (summation –difference modulation) to the received single bit bitstream.” see column 12, lines 44-64; column 13, line 36 to column 12, line 24 and Figures 8 and 11.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A. Christopher (US 4,901,077) discloses a sigma-delta modulator used in a digital to analog signal converter.


B. Kim (US 6,636,565) discloses a a method for concealing errors in a macro block of a picture.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew B. Smithers whose telephone number is (571) 272-3876. The examiner can normally be reached on Monday-Friday (8:00-4:30) EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew T. Caldwell can be reached on (571) 272-3868. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2137

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Matthew B Smithers
Primary Examiner
Art Unit 2137